Parkinson's Disease (cont'd)

The early stages:

- The face may show little or no expression
- Arms may not swing when walking
- Speech may become soft or slurred
- Balance issues

Parkinson's Disease (cont'd)

Signs and symptoms:

1. Resting Tremor*: In the early stages of the disease, about 70% of patients experience a slight tremor in the hand or foot on one side of the body, or possibly in the jaw or face. A typical onset is tremor in one finger. Parkinson's tremor may also affect the chin, lips, face, and legs. The tremor may initially appear in only one limb or on just one side of the body but may spread to both sides as the disease progresses. The tremor is often made worse by stress or strong emotions

*Source: https://www.ninds.nih.gov/health-information/disorders/tremor#:~:text=Parkinsonian%20tremor&text=Parkinson's%20tremor%20may%20also%20affect,by%20stress%20or%20strong%20emotions.

Parkinson's Disease (cont'd)

Signs and symptoms (cont'd):

1. Resting Tremor (cont'd): A tremor is a shaking or oscillating movement, and usually appears when a person's muscles are relaxed, or at rest, hence the term "resting tremor." The affected body part shakes when it is not performing an action. Typically, the fingers or hand will tremble when folded in the lap, or when the arm is held loosely at the side and at rest.

Parkinson's Disease (cont'd)

Signs and symptoms (cont'd):

1. Resting Tremor (cont'd): The tremor usually stops when a person begins an action, or by keeping the hand in motion or in a flexed grip. The tremor often spreads to the other side of the body as the disease progresses, but usually remains most apparent on the initially affected side. *Note: although tremors are the most noticeable outward sign of the disease, not all people with PD will develop a tremor.*

Parkinson's Disease (cont'd)

Signs and symptoms (cont'd):

2. Bradykinesia: *Bradykinesia* means "slow movement." This can give the appearance of abnormal stillness and a decrease in facial expressivity. Steps may become shorter when walking, or they may have difficulty getting out of a chair. Also, feet may "stick" to the floor while walking, making it difficult to move.

Parkinson's Disease (cont'd)

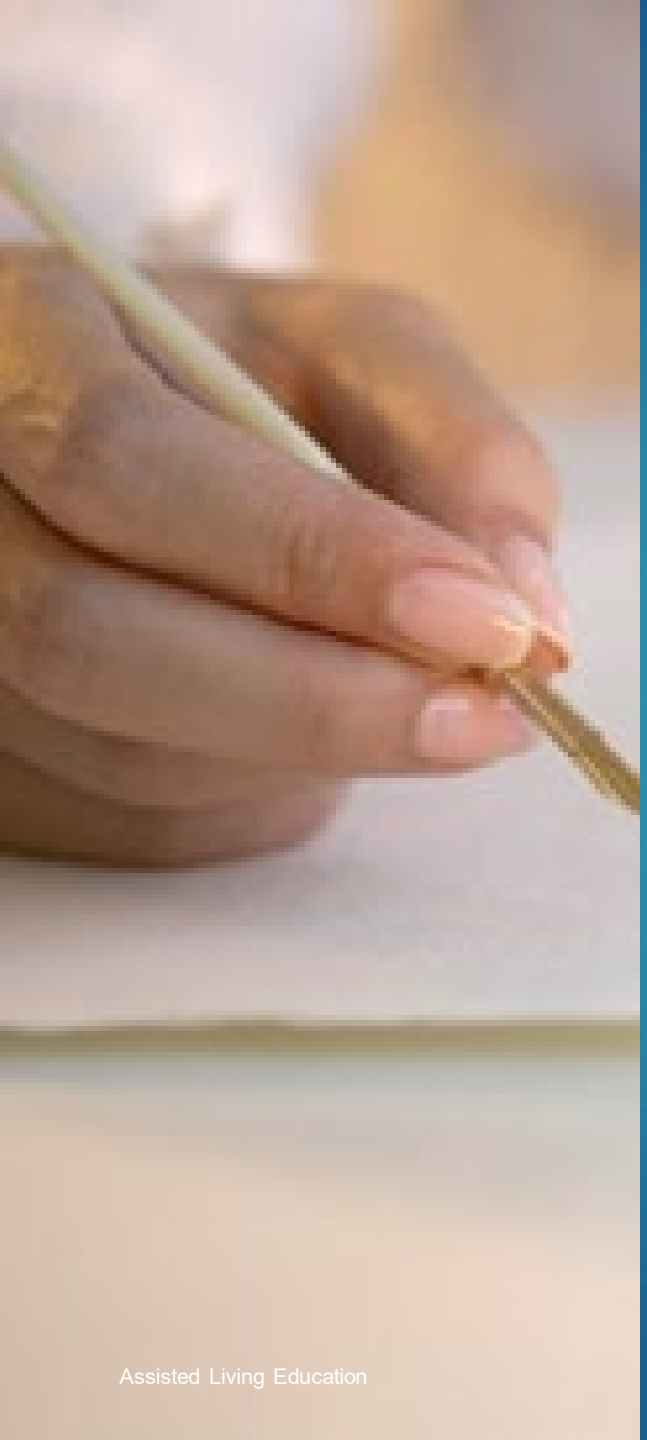
Signs and symptoms (cont'd):

3. Rigid muscles: Muscle stiffness may occur in any parts of the body and can limit range of motion and cause pain. People with PD most commonly experience tightness of the neck, shoulder and leg. A person with rigidity and bradykinesia tends to not swing his or her arms when walking.

Parkinson's Disease (cont'd)

Signs and symptoms (cont'd):

4. Impaired posture and balance: One of the most important signs of PD is postural instability, a tendency to be unstable when standing upright. The resident's posture may become stooped or they may have balance problems.



Parkinson's Disease (cont'd)

Signs and symptoms:

5. Speech changes: They may speak softly, quickly, slur or hesitate before talking and speech may be more of a monotone, rather than with the usual inflections. Drooling and excess saliva can occur, resulting from reduced swallowing movements.
6. Change in handwriting: Writing may appear small and become difficult. This occurs as a result of bradykinesia, which causes difficulty with repetitive actions.

Parkinson's Disease (cont'd)

Signs and symptoms:

7. Mask-like expression: A person's face may appear less expressive than usual. It can occur because of decreased unconscious facial movements.

Parkinson's Disease (cont'd)

Care and Concerns – Mobility:

A person with postural instability has lost some of the reflexes needed for maintaining an upright posture, and may topple backwards if jostled even slightly.

Some develop a dangerous tendency to sway backwards when rising from a chair, standing or turning. This may result in a backwards fall. **You will most likely need to assist the resident with mobility ADL's.**

Parkinson's Disease (cont'd)

Care and Concerns – Mobility (cont'd):

People with balance problems may also have particular difficulty when pivoting or making turns or quick movements.

Parkinson's Disease (cont'd)

Care and Concerns – Walking:

Because PD can disrupt the sense of balance, making it difficult to walk with a normal gait, here is what you can do to help:

1. Remind the resident to try not to move too quickly.
2. Tell them to aim for their heel to strike the floor first when they are walking.
3. If you notice them shuffling, stop and check their posture. It is best for them to stand up straight.
4. Have them look in front of them, not directly down, while walking.

Parkinson's Disease (cont'd)

Care and Concerns – "Freezing up":

- Often, freezing is temporary, and a person can enter a normal stride once he or she gets past the first step.
- Freezing can occur in very specific situations, such as when starting to walk, when pivoting, when crossing a threshold or doorway, and when approaching a chair.
- Some individuals have severe freezing, in which they simply cannot take a step. Freezing is a potentially serious problem in PD, as it may increase a person's risk of falling forward.

Parkinson's Disease (cont'd)

Care and Concerns – Nutrition:

- Serve the resident a nutritionally balanced diet that contains plenty of fruits, vegetables and whole grains.
- Foods high in fiber and drinking an adequate amount of fluids can help prevent constipation that is common in PD.
- A balanced diet also provides nutrients, such as omega-3 fatty acids, that may be beneficial for people with PD.

Parkinson's Disease (cont'd)

Risk Factors:

1. **Age**. Young adults rarely experience PD because it ordinarily begins in middle or late life, and the risk continues to increase with age.
2. **Sex**. Men are more likely to develop PD than are women.
3. **Heredity**. Having a close relative with PD increases the chances that you'll also develop the disease. However, your risks are still small unless you have many relatives in your family with the disease.
4. **Exposure to toxins**. Ongoing exposure to herbicides and pesticides may put you at a slightly increased risk.

Parkinson's Disease (cont'd)

Complications:

1. Dementia usually occurs in the later stages of PD and such cognitive problems aren't very responsive to medications.
2. Bladder problems, including being unable to control urine or having difficulty urinating.
3. Many people with PD may experience depression.
4. PD can cause sleep problems, including waking up frequently throughout the night, waking up early or suddenly falling asleep during the day, or rapid eye movement sleep behavior disorder (REM) — acting out dreams.
5. Constipation can occur due to a slower digestive tract.

Parkinson's Disease (cont'd)

Treatment Options:

There is no cure for PD but medications can help control the symptoms, often dramatically.

Sometimes surgery is advised, in later cases.

Parkinson's Disease (cont'd)

Treatment Options (cont'd):

Medications can help manage problems with walking, movement and tremor by increasing the brain's supply of dopamine. So why not just give them dopamine?

Unfortunately, dopamine cannot be given directly, as it cannot directly enter the brain.

Parkinson's Disease (cont'd)

Treatment Options (cont'd):

- Levodopa is the most effective PD medication.
- It is a natural chemical that passes into the brain and is converted to dopamine.
- Levodopa is combined with carbidopa, which protects levodopa from premature conversion to dopamine outside the brain, which prevents nausea.

AIDS Dementia Complex

AIDS Dementia Complex (or ADC) is a type of dementia that occurs in advanced stages of AIDS (acquired immunodeficiency syndrome).

AIDS is a later stage of HIV (human immunodeficiency virus) infection.

Question: Can we admit a resident with HIV or AIDS into our facility?

YES!

AIDS Dementia Complex (cont'd)

Although HIV does not infect brain nerve cells, the virus may indirectly inflame them or kill them…..leading to dementia.

ADC varies greatly from person to person. Symptoms may progress quickly or slowly. It generally affects four different areas of brain function:

- Thinking abilities
- Behavior
- Coordination and movement
- Mood

AIDS Dementia Complex (cont'd)

Signs and symptoms: Early signs:

- Short attention span
- Trouble remembering
- Poor judgment
- Slowed thinking and longer time needed to do tasks
- Irritability
- Unsteady gait, tremor, or trouble staying balanced
- Poor hand coordination
- Social withdrawal or depression

AIDS Dementia Complex (cont'd)

Signs and symptoms:

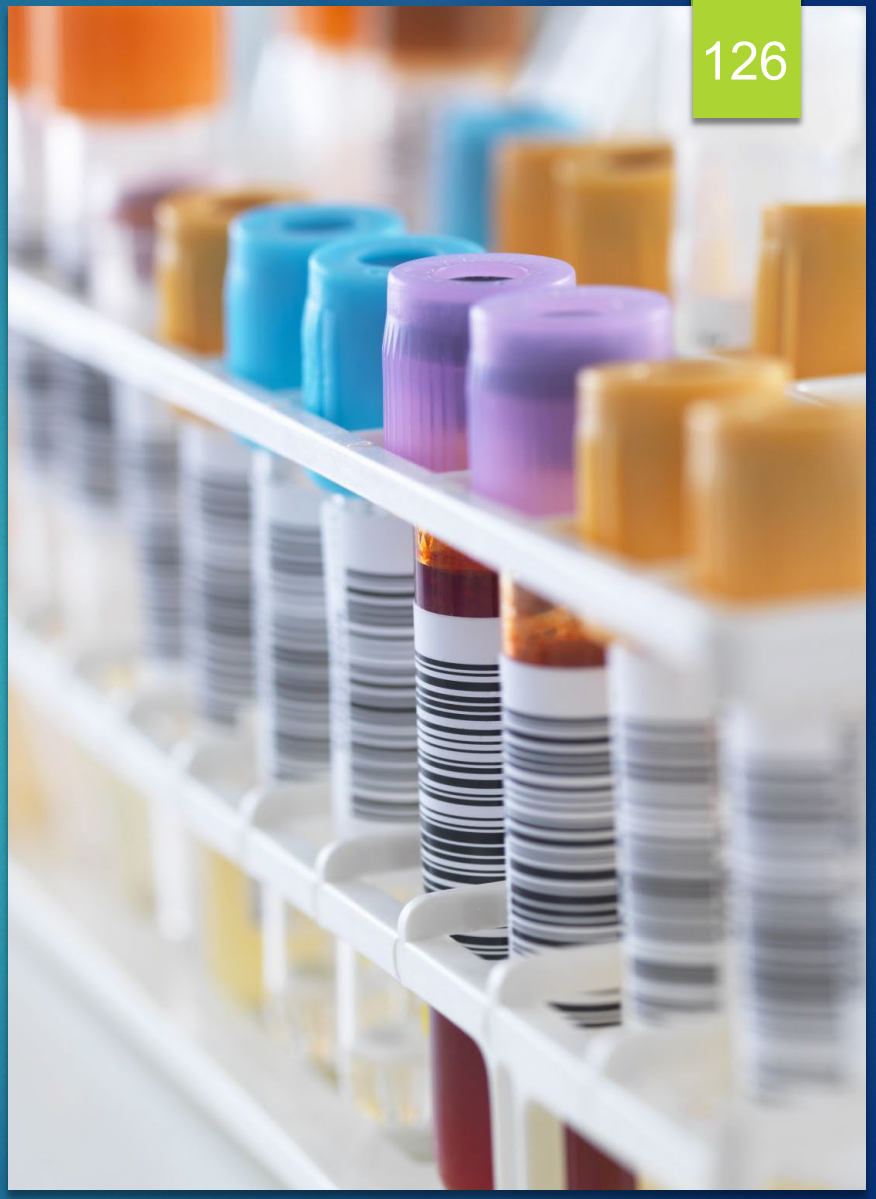
Later signs

- Extreme mood swings
- Psychosis
- Loss of bladder and bowel control

AIDS Dementia Complex (cont'd)

ADC typically occurs after years of HIV infection and is associated with low T cell levels and high plasma viral loads.

It is sometimes seen as the first sign of the onset of AIDS.

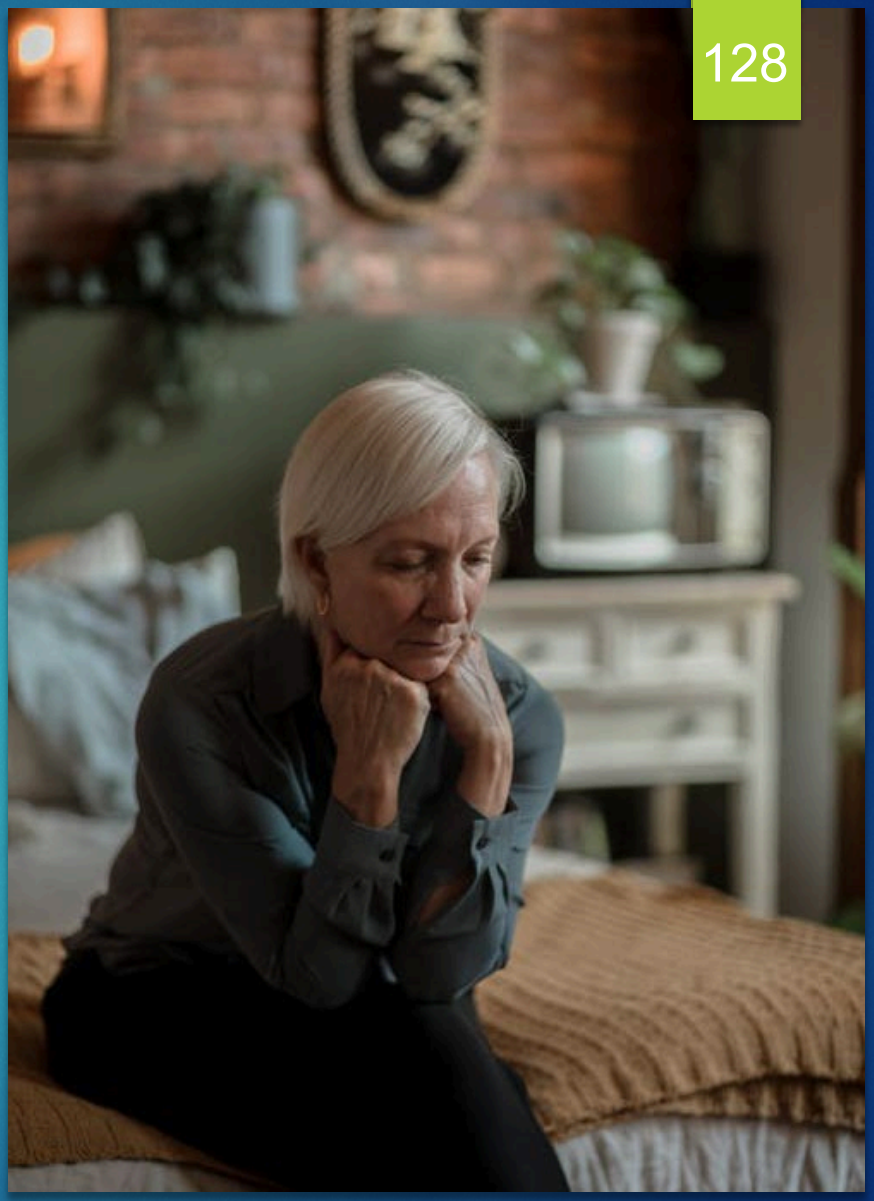


AIDS Dementia Complex (cont' d)

Treatment can include:

- Antidepressants
- Anticonvulsants
- Psychostimulants (may also improve depressive symptoms and combat lethargy)
- Anti-dementia drugs (may relieve confusion and slow mental decline)
- Benzodiazepines (may be prescribed to treat anxiety)

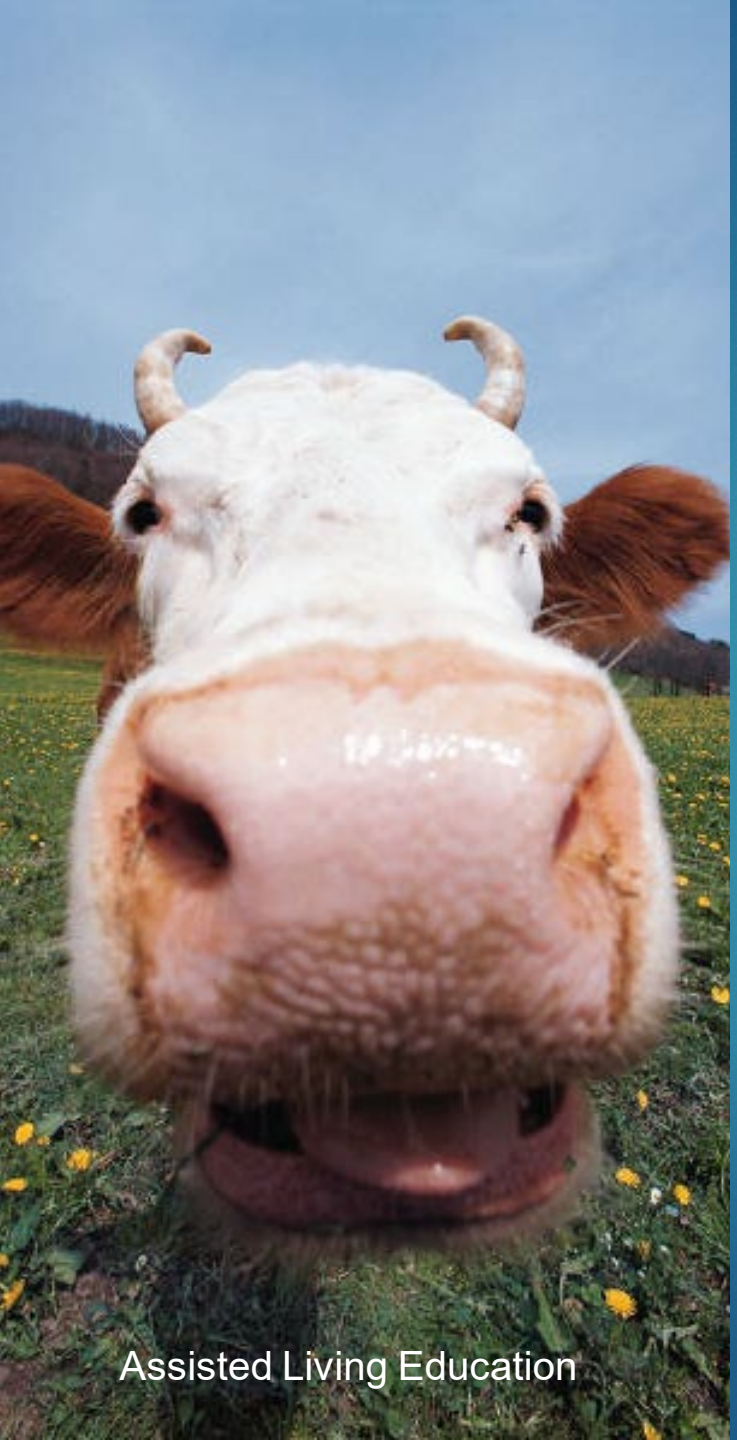
Creutzfeldt-Jakob disease



Creutzfeldt-Jakob disease (CJD) is a rare, degenerative, invariably fatal brain disorder.

Fortunately, it is not *too* common - in the United States there are only about 200 cases per year.

Typically, onset of symptoms occurs about age 60, and about 90% of individuals die within 1 year.



Creutzfeldt-Jakob disease (cont' d)

Creutzfeldt-Jakob disease captured public attention in the 1990s when some people in the UK developed a form of the disease — variant CJD (vCJD) — after eating meat from diseased cattle.

However, "classic" Creutzfeldt-Jakob disease has not been linked to contaminated beef.

Creutzfeldt-Jakob disease (cont' d)

Creutzfeldt-Jakob disease and its variants belong to a broad group of human and animal diseases known as *transmissible spongiform encephalopathies* (TSEs).

The name comes from the spongy holes, visible under a microscope, that develop in affected brain tissue.

Creutzfeldt-Jakob disease (cont'd)

Early stages of disease:

- rapidly progressing dementia
- failing memory
- behavioral changes
- lack of coordination
- visual disturbances

Creutzfeldt-Jakob disease (cont'd)

Later stages:

- mental deterioration
- involuntary movements
- blindness
- weakness of extremities
- coma

Creutzfeldt-Jakob disease (cont'd)

Causes:

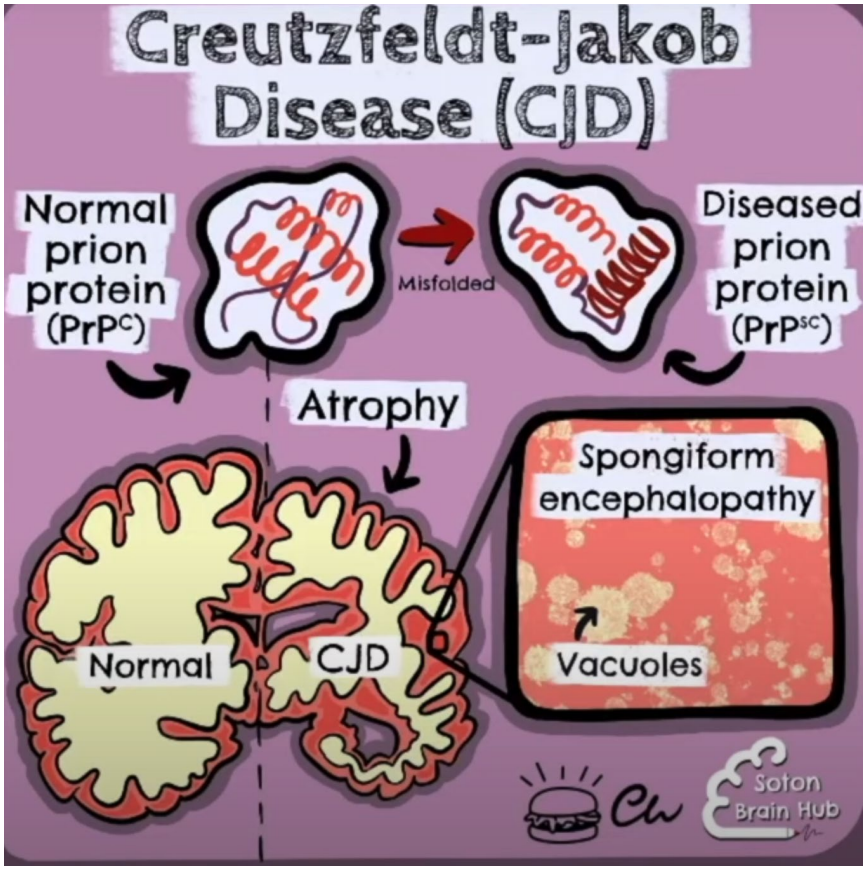
1. It can develop for no apparent reason – the prions in the brain become infected;
2. It can be inherited (5-10% of the cases); or
3. Through contamination (contaminated surgical instruments, ingesting infected meat)

Creutzfeldt-Jakob disease (cont'd)

Treatments and medications:

Unfortunately, this disease is fatal and there is no effective treatment that exists for Creutzfeldt-Jakob disease or any of its variants.

Because of this, doctors focus on alleviating pain and other symptoms and on making people with these diseases as comfortable as possible.



Down Syndrome and Alzheimer's Disease

As our residents with Down syndrome age, those affected by Down syndrome have a greatly increased risk of developing a type of dementia that's either the same as or very similar to Alzheimer's disease.

Down Syndrome (cont'd)

Per the Alzheimer's Association*:

Advances in function, well-being and life span for people with Down syndrome have revealed an additional health risk: As they age, individuals affected by Down syndrome have a greatly increased risk of developing a type of dementia that's either the same as or very similar to Alzheimer's disease.

Autopsy studies show that by age 40, the brains of almost all individuals with Down syndrome have significant levels of beta-amyloid plaques and tau tangles, abnormal protein deposits considered Alzheimer's hallmarks. Despite the presence of these brain changes, not everyone with Down syndrome develops Alzheimer's symptoms.

*Source: https://www.alz.org/alzheimers-dementia/what-is-dementia/types-of-dementia/down-syndrome

Down Syndrome (cont'd)

Per the Alzheimer's Association*:

As with all adults, advancing age also increases the chances a person with Down syndrome will develop Alzheimer's disease. According to the National Down Syndrome Society, about 30% of people with Down syndrome who are in their 50s have Alzheimer's dementia. About 50% of people with Down syndrome in their 60s have Alzheimer's dementia.

*Source: https://www.alz.org/alzheimers-dementia/what-is-dementia/types-of-dementia/down-syndrome

Down Syndrome (cont'd)

Symptoms:

According to the Alzheimer's Association, in people with Down syndrome, changes in overall function, personality and behavior may be more common early signs of Alzheimer's than memory loss and forgetfulness.

Early symptoms may include:

- Reduced interest in being sociable, conversing or expressing thoughts
- Decreased enthusiasm for usual activities
- Decline in ability to pay attention
- Sadness, fearfulness or anxiety
- Irritability, uncooperativeness or aggression
- Restlessness or sleep disturbances
- Seizures that begin in adulthood
- Changes in coordination and walking
- Increased noisiness or excitability

Down Syndrome (cont'd)

Resident challenges:

Because our residents with Down syndrome will not, or not able to, self-report concerns about memory, diagnosing dementia in a resident with Down syndrome can be difficult.

Here is what the facility can do to support those residents:

1. The Alzheimer's Association suggests documenting baseline adult function by age 35. Ongoing evaluation of intellectual, behavioral and social function is important for everyone with Down syndrome. By age 35, each individual's medical record should ideally include detailed information on his or her adult abilities.

Down Syndrome (cont'd)

Resident challenges (cont'd):

2. Watch for changes in day-to-day function. Reduced enthusiasm for daily activities, loss of interest in social interactions, and changes in personality and behavior are often early signs of an underlying decline in thinking skills.
3. Rule out other causes of symptoms. It is important to rule out other medical conditions commonly associated with Down syndrome as the cause of changes in thinking and function, including thyroid problems, depression, chronic ear and sinus infections, vision loss, and sleep apnea.

Chronic Traumatic Encephalopathy (CTE) dementia

Let's watch this 4-1/2 minute news clip about Frank Gifford's CTE diagnosis:

https://www.youtube.com/watch?v=YSeAydR0_WU

Chronic Traumatic Encephalopathy (CTE) Dementia

According to Dementia Australia*:

Chronic traumatic encephalopathy (CTE) is a type of dementia where many repeated head injuries can affect someone's brain function over time, enough to interfere with the person's normal or working life. Repeated head injuries can take the form of concussion, or even smaller head knocks without symptoms, which are called subconcussion.

*Source: https://www.dementia.org.au/about-dementia/types-of-dementia/chronic-traumatic-encephalopathy-dementia

Chronic Traumatic Encephalopathy (CTE) Dementia

Signs and symptoms – these symptoms can affect thinking, mood and behavior.

Thinking-related symptoms:

- Memory loss
- Learning difficulties
- Concentration difficulties
- Confusion
- Difficulty making decisions
- Loss of sense of direction
- Driving difficulties
- Brain fog with headache or head pressure
- Sleep pattern disturbance, poor sleep
- Loss of awareness of having difficulties

Chronic Traumatic Encephalopathy (CTE) Dementia

Mood-related symptoms:

- Irritability
- Depression and/or suicidal thinking
- Panic
- Anxiety
- Impulsiveness
- Loss of empathy

Chronic Traumatic Encephalopathy (CTE) Dementia

Behavior-related symptoms:

- Rage episodes, including road rage
- Agitation
- Loss of motivation
- Reduced social activity
- Wandering, elopement
- Slowness, like Parkinson's disease changes

Chronic Traumatic Encephalopathy (CTE) Dementia

Diagnosing CTE:

Interesting fact…..it is possible to be diagnosed with CTE only and not CTE dementia!

There is no single test for CTE dementia. A medical team, which may comprise of neurologists, geriatricians, sports physicians and rehabilitation specialists, can possibly identify the likelihood of having CTE dementia.

Tests can include MRI's, neuropsychology testing and cognitive screening.

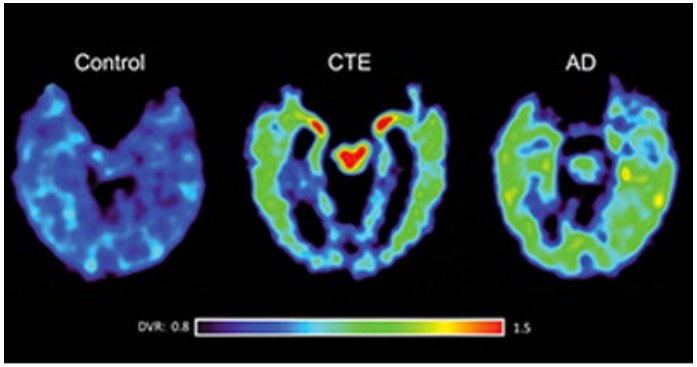
Chronic Traumatic Encephalopathy (CTE) Dementia

Who gets CTE dementia?

CTE dementia has been identified in people who participated in boxing, football, competitive cycling, equestrian sports, car racing and activities that involve contact or collisions. Military veterans are also at risk.

Also, people who have had concussions, even minor ones like head knocks, may develop CTE dementia, however, a single or low number of head knocks probably will not cause a problem.

Chronic Traumatic Encephalopathy (CTE) Dementia



Source: Adapted with permission from Dr. Jorge Barrio et al., PNAS

*Source: https://www.alz.org/alzheimers-dementia/what-is-dementia/related_conditions/chronic-traumatic-encephalopathy

Per the Alzheimer's Association*:

"A diagnosis of CTE can only be made after death, when an autopsy can reveal whether the known brain changes of CTE are present. When CTE is suspected, a thorough medical history, mental status testing, neurological exams, brain imaging and more may be used to rule out other causes. Like Alzheimer's, CTE involves tau, a protein in nerve cells that has been associated with dementia. However, researchers have found that CTE has a unique pattern of abnormal tau buildup in the tissues around the blood vessels that is different from other brain diseases involving tau — including Alzheimer's. Because better imaging techniques are now available, studies are beginning to show that CTE is distinct from Alzheimer's. More research is needed to fully understand the brain changes that occur in CTE and how it is related to dementia."

Chronic Traumatic Encephalopathy (CTE) Dementia

Treatment options:

Because there is no cure or treatment for CTE, certain medicines may be used to temporarily treat the cognitive (memory and thinking) and behavioral symptoms.

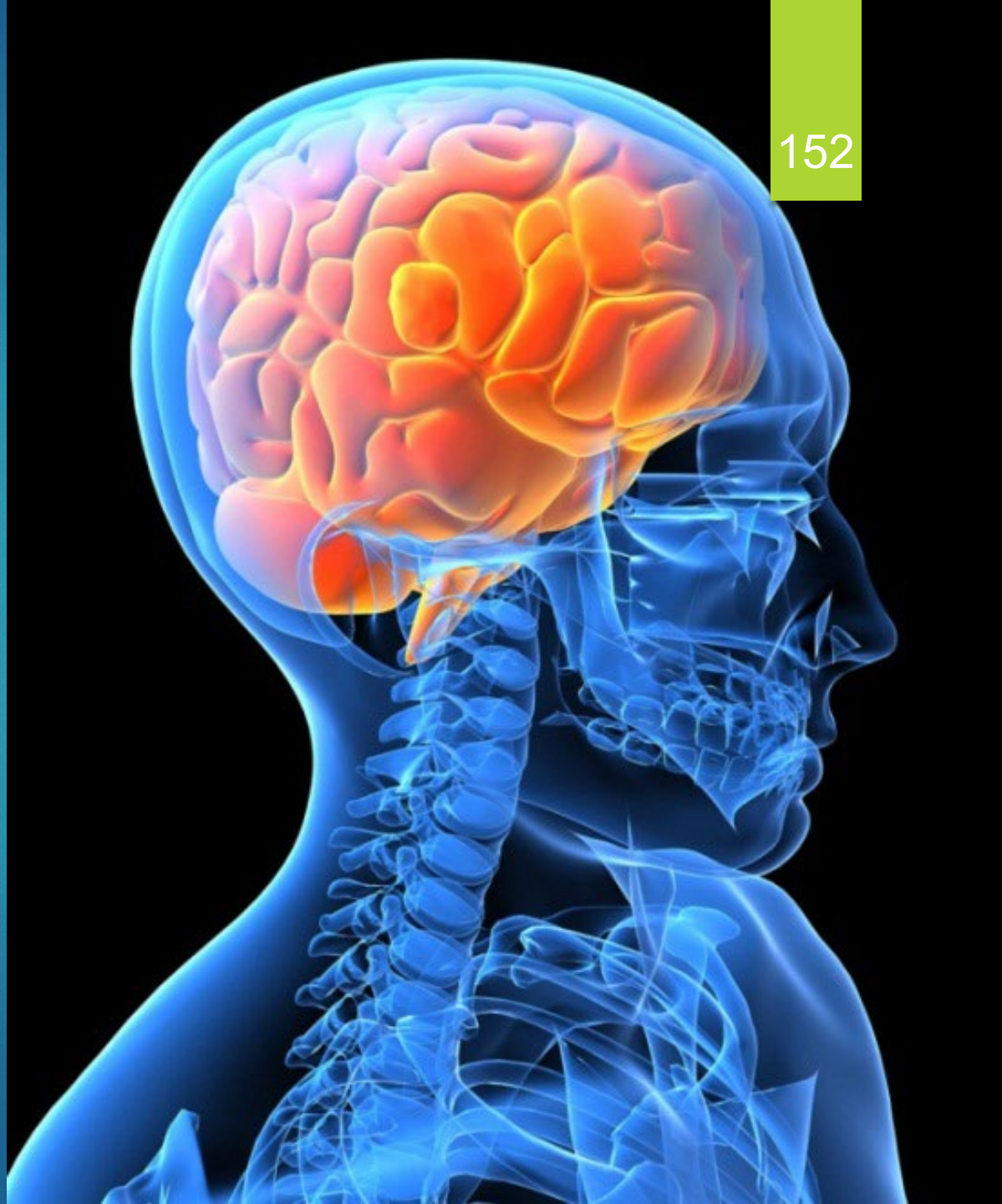
Have the resident avoid things that can worsen thinking, such as alcohol consumption and smoking.

If the resident is having sleep issues, report this to their physician as this can worsen the symptoms.

Reversible Dementias

Types of Reversible Dementias

- Reactions to medications
- Metabolic Issues
- Depression
- Infections
- Nutritional deficiencies
- Alcohol abuse
- Normal pressure hydrocephalus
- Brain tumors or subdural hematomas



Reactions to Medications

Dementia may occur as a reaction to a single medication or because of an interaction of several medications.

12% of dementias may be related to *polypharmacy* (taking too many medications).

Reactions to Medications (cont'd)

Polypharmcy:

The word *poly* means many, and *pharmacy* refers to medicines, so polypharmacy is when too many (defined as more than 5+) medications are used to treat a person.

Reactions to Medications (cont'd)

- The most common culprits are sleeping pills and tranquilizers, but narcotics can cause dementia, also.
- Illegal drugs, especially cocaine (which affects circulation and may cause small strokes) and heroin (which is very anticholinergic) may also cause dementia, especially in high doses, if taken for long periods, or in older people.
- The withdrawal of the drug usually reverses the symptoms.

Reactions to Medications (cont'd)

The good news is that dementia caused by prescription drug use *may* be stopped by discontinuing the offending medication.

By stopping or modifying the dosage of numerous, frequently prescribed drugs, most patients can be restored to a pre-drug state of mental clarity.

Reactions to Medications (cont'd)

Why are older people more susceptible to drug-induced delirium and dementia?

1. The body's ability to rid itself of drugs decreases with age, often because of normal age-related decrease in kidney and liver function.
2. Older patients are often prescribed multiple drugs at the same time (polypharmacy), resulting in complicated interactions and enhanced side effects.
3. Older patients' brains may be more sensitive to drugs' effects on the central nervous system.

Reactions to Medications (cont'd)

Which medications are the worst?

Check out this link:

http://www.americangeriatrics.org/files/documents/beers/2012AGSBeersCriteriaCitations.pdf

It is called the Beers List and was created by the American Geriatric Society to help seniors identify potentially hazardous medications for them.

Reactions to Medications (cont'd)

Also……

The website: www.worstpills.org lists 136 of the worst offenders (some of which will be discussed on the next slide).

Reactions to Medications (cont'd)

The list includes:

- antihistamines (Benedryl)
- a drug widely used for treating urinary incontinence, tolteridine (Detrol)
- a nausea treatment drug, metoclopramide (Reglan)
- Drugs in the benzodiazepine category such as popular sleeping pills Ambien (zolpidem) and Lunesta (eszopiclone).

Reactions to Medications (cont'd)

Dementia-causing medications:

Benzodiazepines — which include tranquillizers and sleeping pills — have a wide range of effects on the central nervous system.

They are commonly used to treat anxiety in the short-term, and also to sedate critically ill patients or those undergoing surgery.

Reactions to Medications (cont'd)

Dementia-causing medications:

Benzodiazepines (cont'd):

People taking benzodiazepines are at greater risk for developing delirium while hospitalized, and when benzodiazepines are used to treat agitation associated with delirium from other causes, they often make it worse!

Reactions to Medications (cont'd)

Dementia-causing medications:

Opiates, also called narcotics, are a class of highly effective pain medication that act on the opioid receptor in the brain.

Opiates can cause delirium and the more chronic cognitive changes seen in dementia.

Reactions to Medications (cont'd)

Dementia-causing medications:

Corticosteroids: a type of hormone commonly used to treat severe asthma attacks.

Also used to suppress the immune system including the treatment of auto-inmmune diseases such as rheumatoid arthritis, but an excess can cause agitation and even actual psychoses.

Reactions to Medications (cont'd)

Dementia-causing medications:

Fluoroquinolone antibiotics are increasingly used to treat a variety of infections and have been linked with delirium in elderly patients.

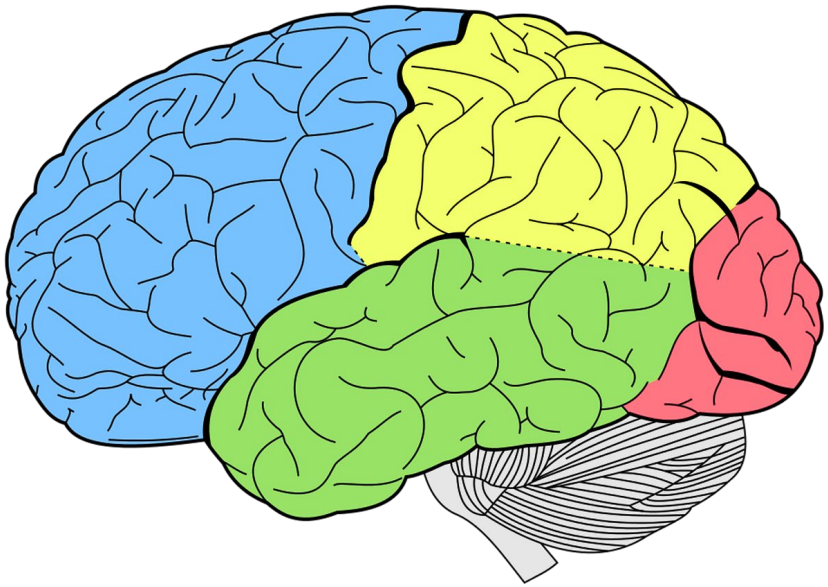
Examples: Cipro, Levaquin, Cadazolid (used to treat C. Diff)

Metabolic Issues

Dementia due to metabolic causes is a loss of brain function that can occur with:

diabetes, thyroid disease, and other metabolic disorders.

The term "*metabolic*" refers to the physical and chemical processes in the body.



Metabolic Issues (cont'd)

Dementia can also be caused by:

- obesity;
- hypertension;
- endocrine disorders, such as Addison's disease or Cushing's disease;
- too little sugar in the bloodstream (hypoglycemia);
- heavy metal exposure, such as to lead, arsenic, mercury, or manganese;
- too low or too high amounts of sodium or calcium; or
- an impaired ability to absorb vitamin B-12

Metabolic Issues (cont'd)

Diabetes:

Why would diabetes cause dementia?

There is a strong association between diabetes and vascular dementia, which was discussed earlier in this course.

It is *vital* that the person with diabetes control it properly as to not cause vascular dementia.

Metabolic Issues (cont'd)

Diabetes (cont'd):

According to the NIH*, people who were diagnosed with diabetes between 65 and 70 years old were 24% more likely to have dementia than people who did not have type 2 diabetes at age 70.

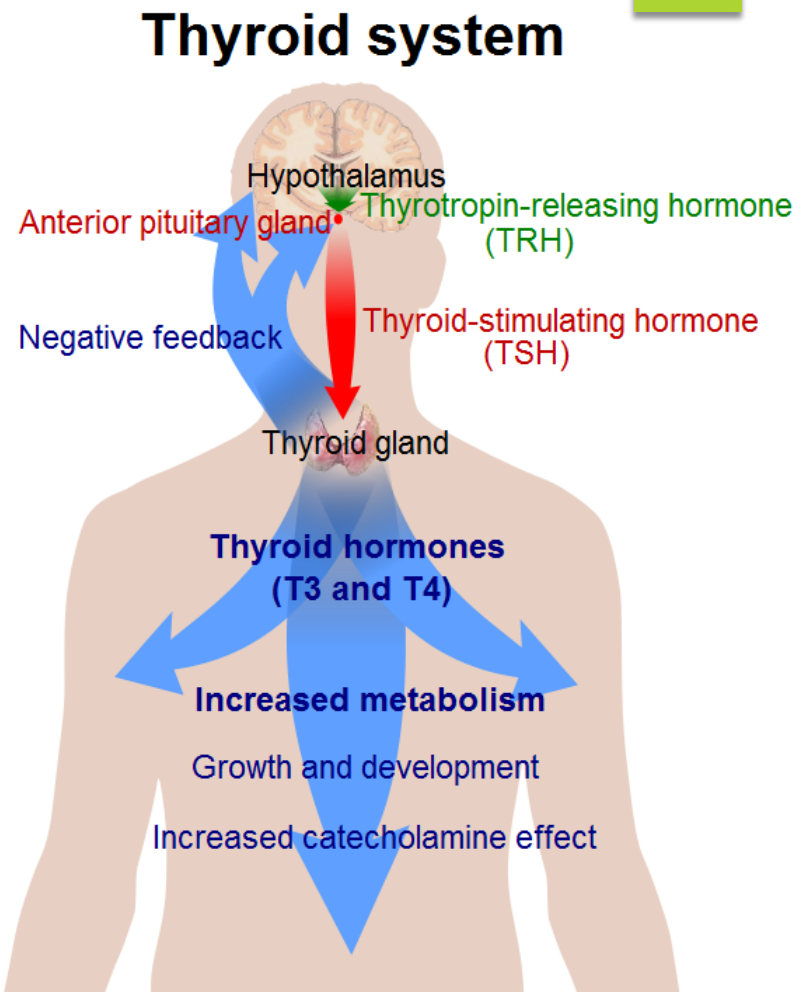
The researchers also found that prediabetes (blood glucose levels above normal but not high enough for a diagnosis of diabetes) heightened the risk for dementia.

*Source: https://www.nia.nih.gov/news/study-links-younger-age-onset-type-2-diabetes-increased-risk-dementia

Metabolic Issues (cont'd)

Thyroid disorders:

- *Hypothyroidism* is a condition in which the thyroid gland does not make enough thyroid hormone.
- This can cause dementia-like symptoms.
- In fact, if a resident develops dementia, their thyroid is always checked.



Metabolic Issues (cont'd)

Vitamin B-12 deficiencies:

If a person is deficient in Vitamin B-12 or cannot absorb vitamin B-12 properly, they may develop dementia.

Vitamin B12 has many important functions in the body. It helps keep levels of the amino acid homocysteine in check, which may help decrease heart disease risk, and it is essential to the production of red blood cells, which carry oxygen through the blood to the body's tissues.

Metabolic Issues (cont'd)

Vitamin B-12 deficiencies (cont'd):

How does someone become deficient?

Typically, it occurs in people whose digestive systems do not adequately absorb the vitamin from the foods they eat. This can be caused by:

- Anemia
- Gastritis
- Conditions affecting the small intestine, such as Crohn's disease, celiac disease
- Alcoholism
- A Vegetarian diet

Metabolic Issues (cont'd)

Diseases of the liver, pancreas, or kidneys can lead to dementia by disrupting the balances of salts (for example, sodium and calcium) and other chemicals (like low glucose levels) in the blood.

If the underlying disease persists, however, brain cells may die, and the person will develop dementia.

Depression

Since depression and dementia share many similar symptoms, including memory problems, sluggish speech and movements, and low motivation, it can be difficult to tell the two apart.

Depression (cont'd)

Is it Depression or Dementia?

Symptoms of Depression	Symptoms of Dementia
Mental decline is relatively rapid	Mental decline happens slowly
Knows the correct time, date, and where he or she is	Confused and disoriented; becomes lost in familiar locations
Difficulty concentrating	Difficulty with short-term memory
Language and motor skills are slow, but normal	Writing, speaking, and motor skills are impaired
Notices or worries about memory problems	Doesn't notice memory problems or seem to care

Depression (cont'd)

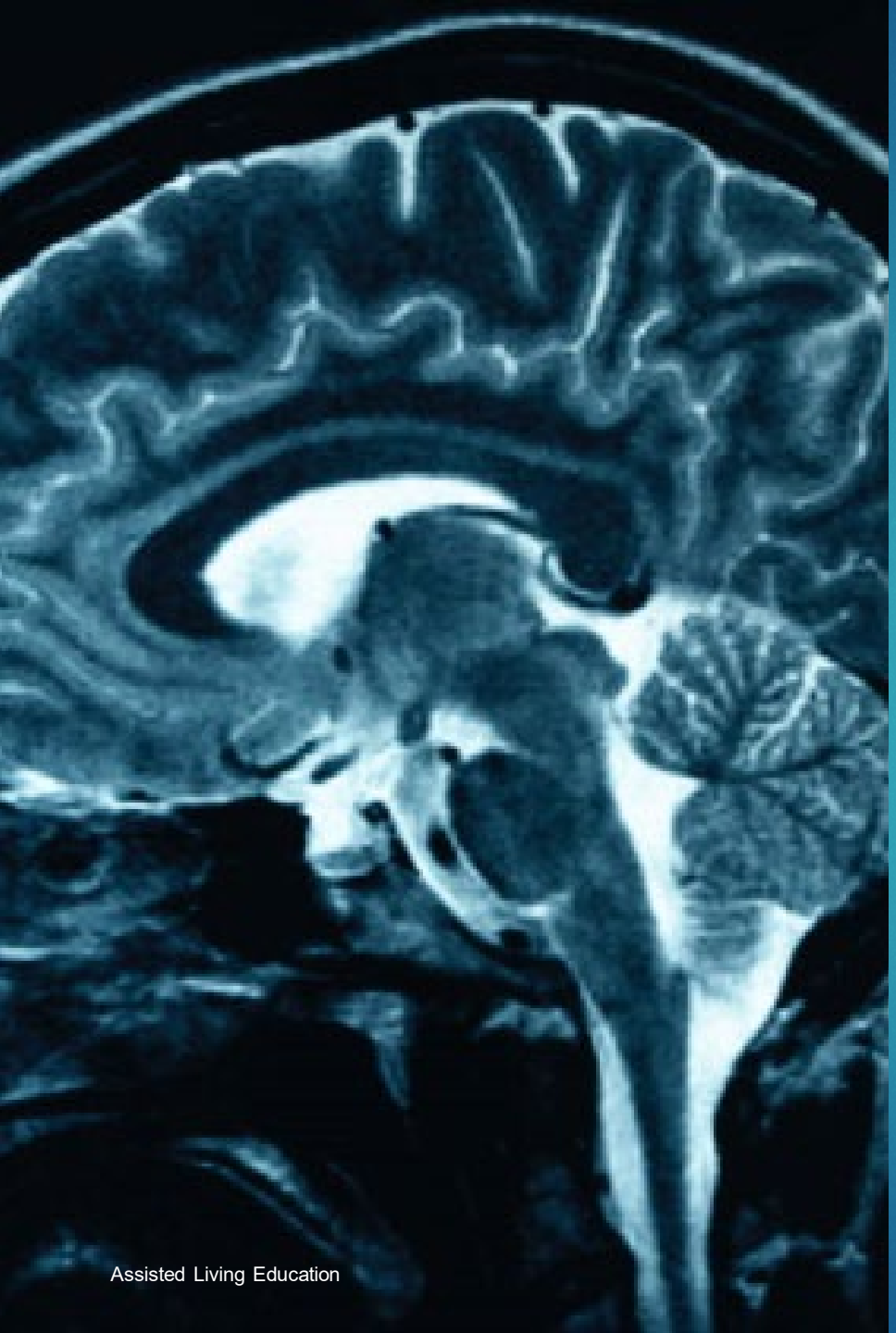
Recognizing depression in the elderly starts with knowing the signs and symptoms. Depression red flags include:

- Sadness
- Fatigue
- Sleep disturbances
- Abandoning or losing interest in hobbies or other pleasurable pastimes
- Social withdrawal and isolation
- Weight loss or loss of appetite
- Loss of self-worth (worries about being a burden, feelings of worthlessness, self-loathing)
- Fixation on death; suicidal thoughts or attempts

Depression (cont'd)

Because depression in the elderly is often linked to physical illness, which can increase the risk for depression, make sure you help them get medical attention.

This can result in an antidepressant medication prescription or counseling/therapy services.



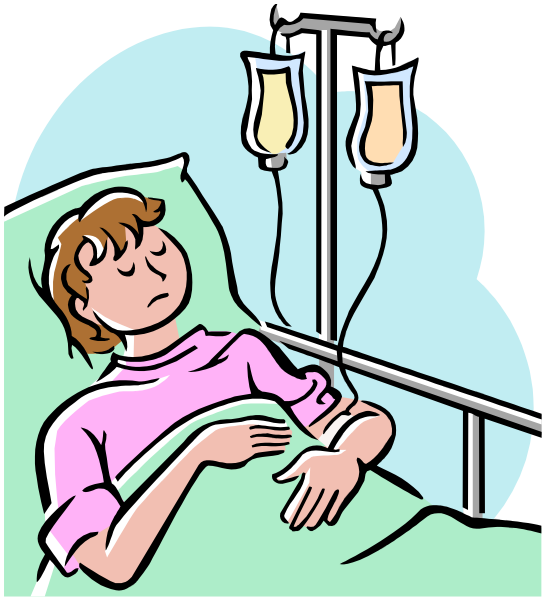
Infections

Infections of brain structures, such as encephalitis and meningitis, can cause dementia.

Other infections, such as HIV/AIDS and syphilis an also affect the brain.

Why? Because inflammation of the brain from these infections causes damage to brain cells.

Infections (cont'd)



- Confusion can be a symptom of an infection and needs to be brought to the attention of the physician.
- Other possible infections include: UTI's, cold and flu, staph, etc. Also, dehydration can cause confusion.

Nutritional Deficiencies

Poor nutrition and/or eating habits can either cause dementia or worsen dementia.

If someone is malnourished, or has anorexia, they are not getting or absorbing the necessary nutrients for brain health.

Also, dehydration can cause dementia and confusion.

Alcohol Abuse

Excessive drinking over a period of years may lead to a condition known as Alcohol Dementia, which can cause problems with memory, learning and other cognitive skills.

Nutrition problems which often accompany long-time alcohol abuse can be another contributing factor, since parts of the brain may be damaged by vitamin deficiencies.

Alcohol Abuse (cont'd)

Alcohol misuse also may lead to brain damage through:

- The direct toxic effects of alcohol on brain cells
- The biological stress of repeated intoxication and withdrawal
- Alcohol-related cerebrovascular disease
- Head injuries sustained when inebriated (falling)

Alcohol Abuse (cont'd)

Alcohol Dementia is also sometimes known as *Wernicke-Korsakoff Syndrome* and can include symptoms caused by alcohol withdrawal.

The cause is generally attributed to malnutrition, especially lack of vitamin B-1 (thiamine), which commonly accompanies habitual alcohol use or alcoholism*.

In this type of dementia, abstinence may partly restore mental functioning.

*Source: https://www.alz.org/alzheimers-dementia/what-is-dementia/types-of-dementia/korsakoff-syndrome

Alcohol Abuse (cont'd)

Let's watch this interesting video about Wernicke-Korsakoff Syndrome:

https://www.youtube.com/watch?v=PKcEUW2ETnU

Alcohol Abuse (cont'd)

More on Korsakoff Syndrome:

Per the Alzheimer's Association*:

"Thiamine helps brain cells produce energy from sugar. When levels fall too low, brain cells cannot generate enough energy to function properly. Korsakoff syndrome is most commonly caused by alcohol misuse, but can also be associated with AIDS, cancers that have spread throughout the body, chronic infections, poor nutrition and certain other conditions. It is also common in people whose bodies do not absorb food properly (malabsorption). This can sometimes occur with a chronic illness or after weight-loss (bariatric) surgery."

*Source https://www.alz.org/alzheimers-dementia/what-is-dementia/types-of-dementia/korsakoff-syndrome

Alcohol Abuse (cont'd)

More on Korsakoff Syndrome……

Signs and symptoms*:

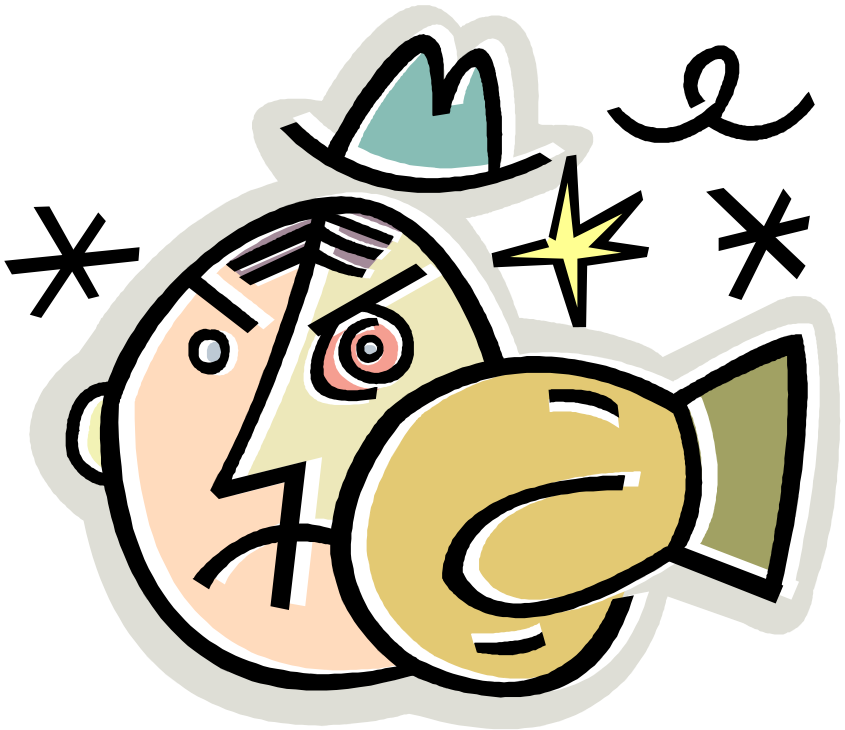
- Problems learning new information
- Inability to remember recent events
- Long-term memory gaps
- Possible hallucinations
- Memory difficulties may be very evident while other thinking and social skills are relatively unaffected. For example, individuals may seem able to carry on a coherent conversation but moments later are unable to recall that the conversation took place or with whom they spoke (as discussed in the prior video).

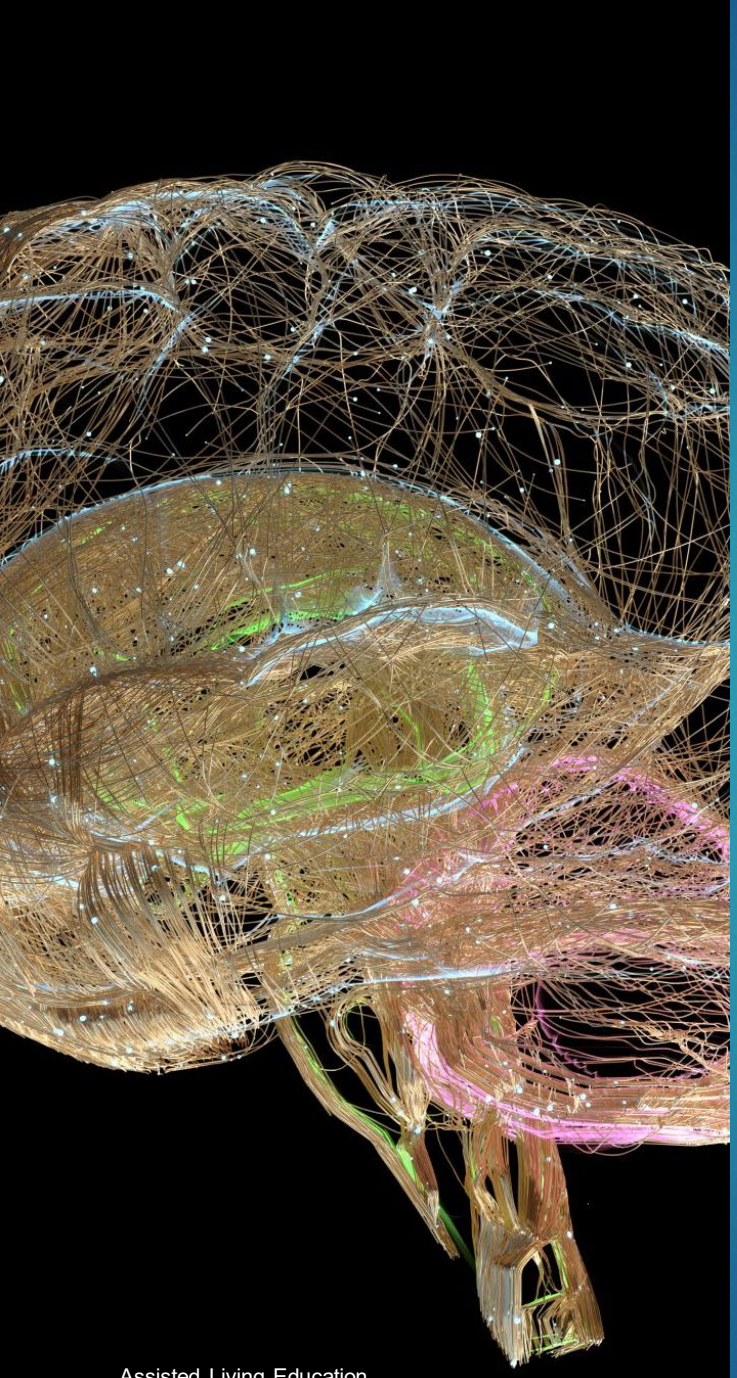
*Source: https://www.alz.org/alzheimers-dementia/what-is-dementia/types-of-dementia/korsakoff-syndrome

Normal Pressure Hydrocephalus

- Hydrocephalus = "water on the brain“ - an excess of cerebrospinal fluid around the brain.

- Can result from head trauma, brain hemorrhage, or meningitis (inflammation of the membrane covering the brain), but most cases occur spontaneously without an obvious preceding illness.





Normal Pressure Hydrocephalus (cont'd)

Tell me more….

The brain floats in a clear fluid called cerebrospinal fluid; this fluid also fills internal spaces in the brain called cerebral ventricles.

If too much fluid collects outside the brain, it causes hydrocephalus.

This condition raises the fluid pressure inside the skull and compresses brain tissue from outside. It may cause severe damage and death.

Normal Pressure Hydrocephalus (cont'd)

Tell me more….

If fluid builds up in the ventricles, the fluid pressure remains normal ("normal pressure hydrocephalus"), but brain tissue is compressed from within.

Shunt surgery, which delivers cerebrospinal fluid from the head to the abdomen or heart, may help the symptoms.

Normal Pressure Hydrocephalus (cont'd)

In addition to developing dementia, people with this condition lose bladder control and walk in a slow, hesitant manner, as if their feet are stuck to the floor.

Brain Tumor or Subdural Hematoma

Brain Tumors:

- Can interfere with cognitive functioning and cause personality changes.
- Depending on their location, they can trigger other symptoms, such as headaches, seizures, or vomiting.
- However, the first symptoms of slow-growing tumors frequently resemble dementia, especially in older people.

Brain Tumor or Subdural Hematoma (cont'd)

Subdural Hematoma:

- *Hematomas* = blood clots caused by bruising.
- When located in the subdural area, between the brain surface and the thin membrane that covers it (the dura), they can cause symptoms that mimic Alzheimer's disease.
- Such subdural hematomas can also be life-threatening, causing coma and death.

Brain Tumor or Subdural Hematoma (cont'd)

Subdural hematomas (cont'd):

- Elderly people sometimes develop subdural hematomas after a very minor (and, therefore, often forgotten) head injury.
- As blood oozes into a closed space, the hematoma enlarges and begins to interfere with brain function. Removing the clot within weeks of the injury may restore mental function.
- However, the symptoms often evolve so slowly that diagnosis is delayed for months.

Being Overweight

Why would being overweight matter?

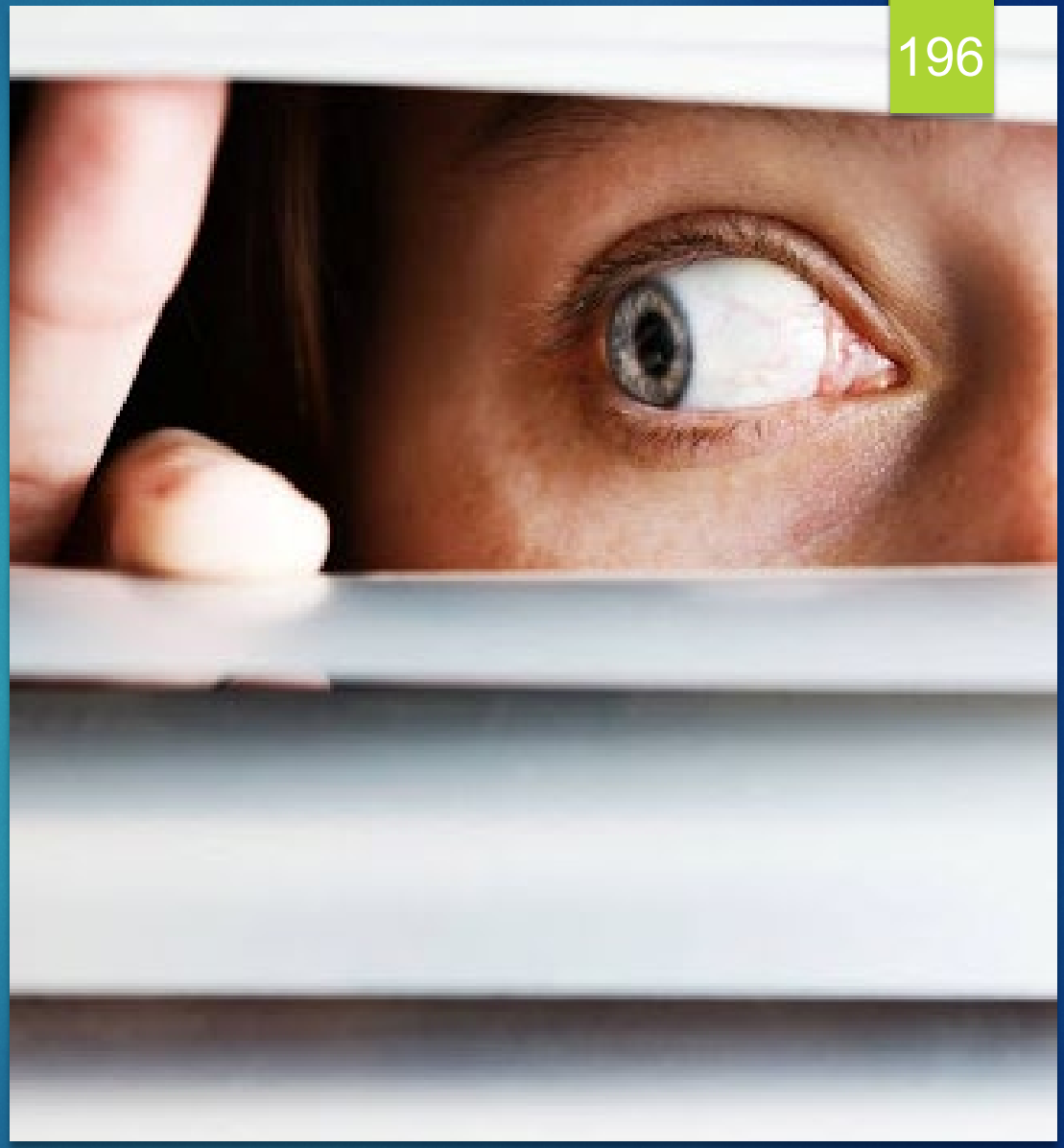
Watch this 2+ minute video and you will get the answers:

https://www.youtube.com/watch?v=NuCCA0bouJc

Reversible or Irreversible???

Delusions, Hallucinations and Paranoia

It is common for people with dementia to experience delusions (or strongly held false beliefs) and paranoia.



Delusions, Hallucinations and Paranoia

According to the National Institute on Aging*, these are defined as:

"**Hallucinations** involve hearing, seeing, smelling, or feeling things that are not really there. For example, a person with Alzheimer's may see children playing in the living room when no children exist.

Delusions are false beliefs that the person thinks are real. For example, the person may think his or her spouse is in love with someone else.

Paranoia is a type of delusion in which a person may believe—without a good reason—that others are mean, lying, unfair, or "out to get me." He or she may become suspicious, fearful, or jealous of people."

*Source: https://www.nia.nih.gov/health/alzheimers-changes-behavior-and-communication/alzheimers-and-hallucinations-delusions-and#:~:text=Hallucinations%20involve%20hearing%2C%20seeing%2C%20smelling,the%20person%20thinks%20are%20real.

Delusions, Hallucinations and Paranoia

Delusions (or strongly held false beliefs) are a common symptom for a person with dementia. They can progress to paranoia, which makes the resident feel threatened and scared, even if there is little or no reason for them to feel this way.

Dementia can make a resident suspicious of the people around them….and their actions.

Delusions, Hallucinations and Paranoia

True story about a resident experiencing delusions and paranoia, as told by Jane Van Dyke-Perez about her mother:

My mother lived in a beautiful, safe, wonderfully-run independent-living facility in Bend, Oregon. This is where the "thief" started targeting Mom. What was really happening? She would put items, such as a watch, in a different place and then when she couldn't find them, they were "stolen". This led to her hiding MORE items which also were "stolen". Of course, each item was found but in a different place than she insisted she put them. How was this happening? The thief would break into her apartment, steal the item, and then break BACK in and put it back into a different spot. As much as I tried to tell her this was illogical, she believed it. Because of this, she was asked to leave.

We moved her to an assisted living facility near my sister, about 100 miles away. Guess what happened? The thief moved, too! Of course, Mom can't/won't believe what is actually happening, so she wants to move again. What do you think the outcome of another move will be?

Delusions, Hallucinations and Paranoia

Dementia cam make a person suspicious of the people around them. For example, they may feel like the are being robbed (like Mom) or they may feel like people are watching them or acting against them. They may jump to conclusions without much evidence. Because of dementia, the person may no longer be able to moderate intense or wild thoughts.

This can be very difficult to cope with, especially if you are trying to convince them that you have done nothing wrong or that you are not trying to harm them.

Delusions, Hallucinations and Paranoia

Another true story:

Mildred has dementia and lives in a memory care unit. Her husband visits once a week. She sees her husband talking to a care staff member one day and becomes convinced that her husband is having an affair. She becomes very angry and starts yelling at him and trying to attack both him and the care staff member. She no longer wants to see him, but cannot remember why and she no longer allows that staff member to care for her.

What can/should be done in this situation?

Delusions, Hallucinations and Paranoia

What causes these delusions and what can be done?

Let's watch an 11 minute video about delusions:

https://www.youtube.com/watch?v=mUe8yCVJoUs

Delusions, Hallucinations and Paranoia

Video discussion points:

- Toby, the missing dog - first approach vs. second
- Connect, don't correct

Delusions, Hallucinations and Paranoia

What causes delusions?

A person with dementia may not be able to put bits of information and memories together correctly, which can lead them to draw false conclusions and believe something that is not true.

These delusions will likely get worse as the dementia progresses.

Delusions are more common in residents with dementia with Lewy bodies but an affect anyone with dementia, particularly in the later stages. However, they are less common in people with frontotemporal dementia.

Delusions, Hallucinations and Paranoia

Common types of delusions:

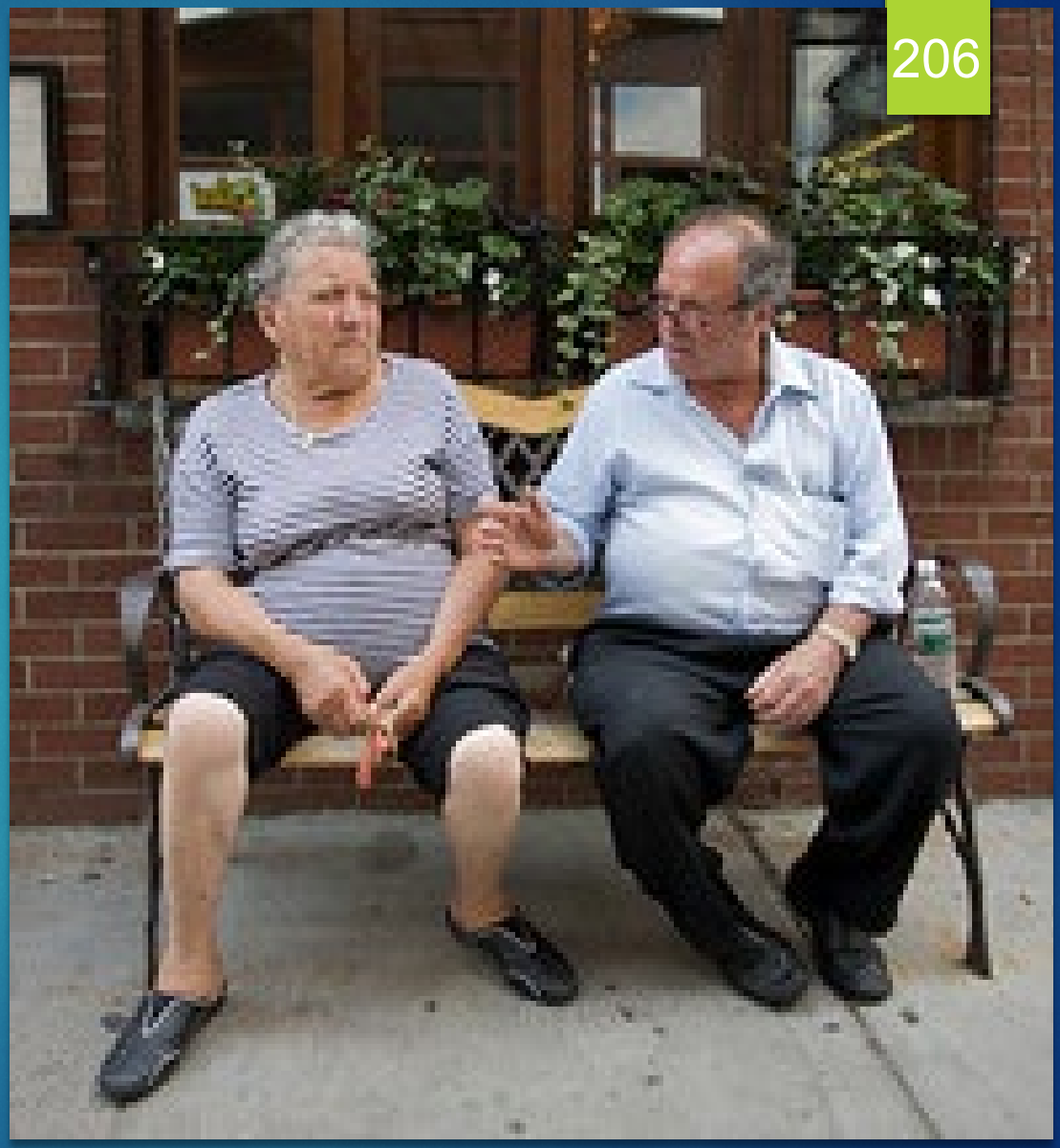
1. Not believing their home to be their real home. This is called "time-shifting"* because they think of their home as the one they USED to live in.
2. Theft. If a person with dementia can't find a particular item, this can cause them to believe it has been stolen. This worry can lead them to hiding things in unusual places, which in turn leads to more items being "stolen".
3. A belief that those closest to them are trying to harm them. This could range from believing a partner is being unfaithful to believing that a love one bringing them food is doing so to poison them.

*Source: https://www.alzheimers.ora.uk/about-dementia/symptoms-and-diagnosis/delusions

Delusions, Hallucinations and Paranoia

Dealing with residents who are delusional is extremely challenging. Their reality is very true for them and it's often impossible to convince this person of the truth. In fact, trying to do so can likely cause them to get upset and could lead to behavioral issues.

The following slides offer tips when discussing a specific delusion (such as theft) with the resident.



Delusions, Hallucinations and Paranoia

Helping the resident:

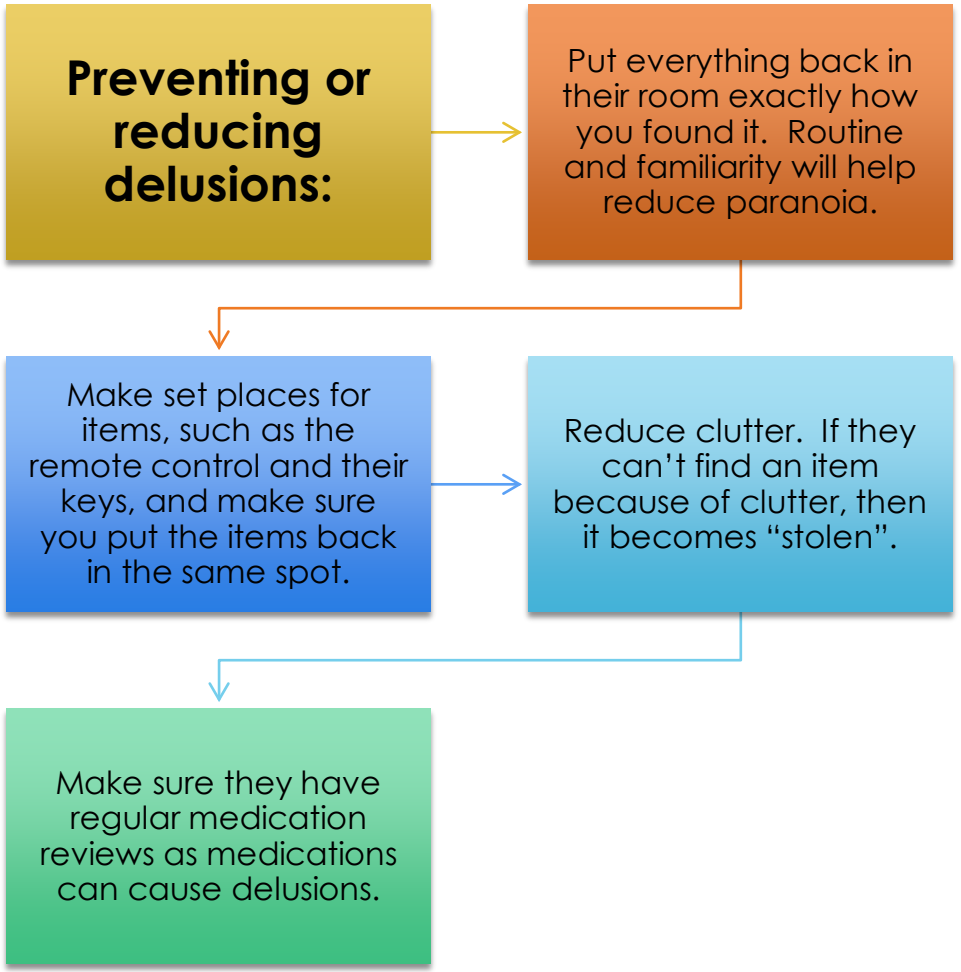
1. Discuss with his/her doctor any illnesses the person with dementia has and medicines he or she is taking. Sometimes an illness (like a urinary tract infection) or medicine (Benadryl) may cause hallucinations or delusions (reversible?).
2. Acknowledge their distress and how they might be feeling, even if to you it seems unreasonable. Dismissing their concerns or arguing with them can cause the situation to escalate and cause them to lose trust in you, the caregiver. Let them know that you will help them find the missing item but suggest another activity first, which may distract the resident and cause them to forget their delusion.

Delusions, Hallucinations and Paranoia

Helping the resident:

3. Encourage the resident to talk through their thoughts. It may reveal why they are having the delusion. For example, maybe the housekeeper moved their furniture around and it no longer looks familiar.
4. Don't take it personally. Yes, it is frustrating to be blamed for something you did not do. Just remember that their brain is not working properly.

Delusions, Hallucinations and Paranoia



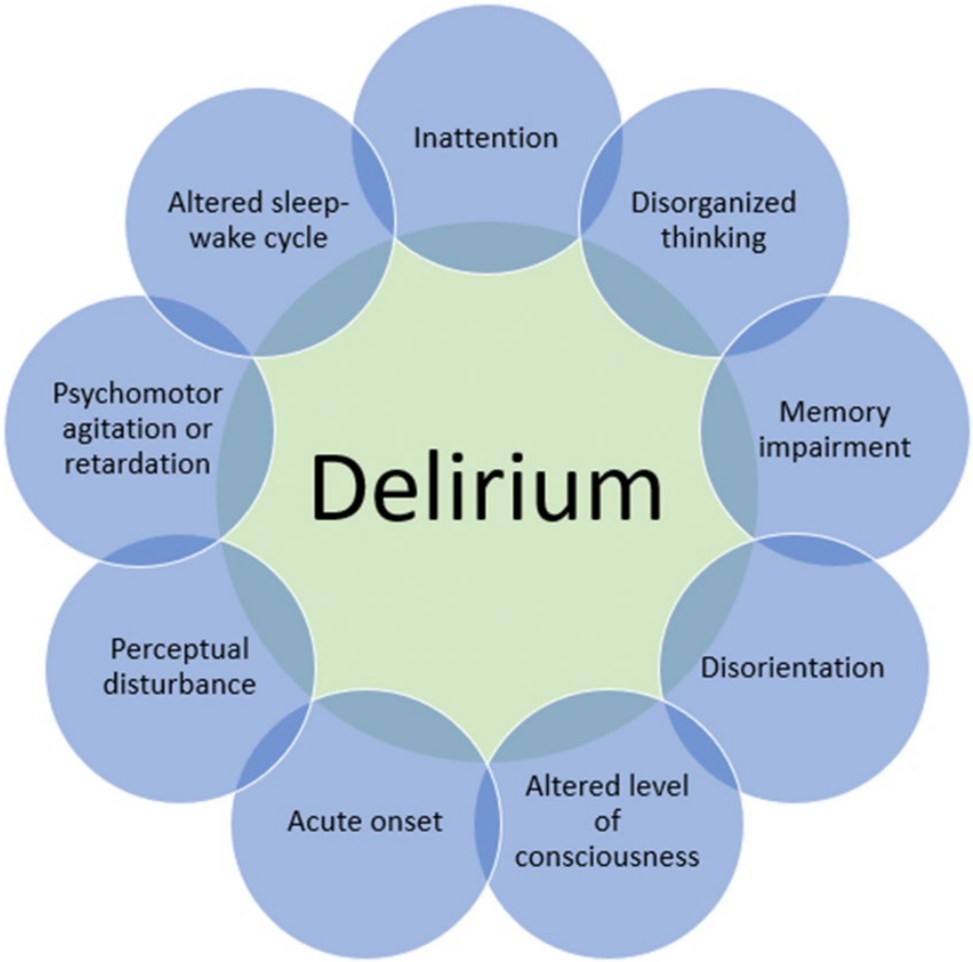
Delirium

What is delirium?

Per the Mayo Clinic*:

"Delirium is a serious change in mental abilities. It results in confused thinking and a lack of awareness of someone's surroundings. The disorder usually comes on fast — within hours or a few days."

*Source: https://www.mayoclinic.org/diseases-conditions/delirium/symptoms-causes/syc-20371386



Delirium (cont'd)

Does this sound familiar?

A resident, who is usually very happy and quiet, goes from that resident to an agitated, angry, confused resident in a matter of 12 hours. What do you automatically think?

Delirium (cont'd)

Was your answer a UTI? Yes.

And then what typically happens? We send the resident to the hospital. The hospital admits the agitated, delirious resident and now claims that they have dementia. A new Physician's Report is completed and now they have the diagnosis of dementia, when really, they are just experiencing delirium caused by an infection. Ugh.

Delirium (cont'd)

According to John Hopkins Medicine*, "delirium is common, especially in older adults and people who are very sick or in the hospital. Up to one-third of all patients staying in the hospital and 80% of patients in the intensive care unit (ICU) experience delirium."*

What causes delirium?

- Advanced cancer
- Alcohol or drugs, either from intoxication or withdrawal
- Dehydration and electrolyte imbalances
- Dementia
- Hospitalization, especially in intensive care
- Infections, such as urinary tract infections, pneumonia, and the flu
- Medicines
- Metabolic disorders (i.e., diabetes)

*Source: https://www.hopkinsmedicine.org/health/conditions-and-diseases/delirium#:~:text=They%20may%20be%20confused%2C%20anxious,sick%20or%20in%20the%20hospital.

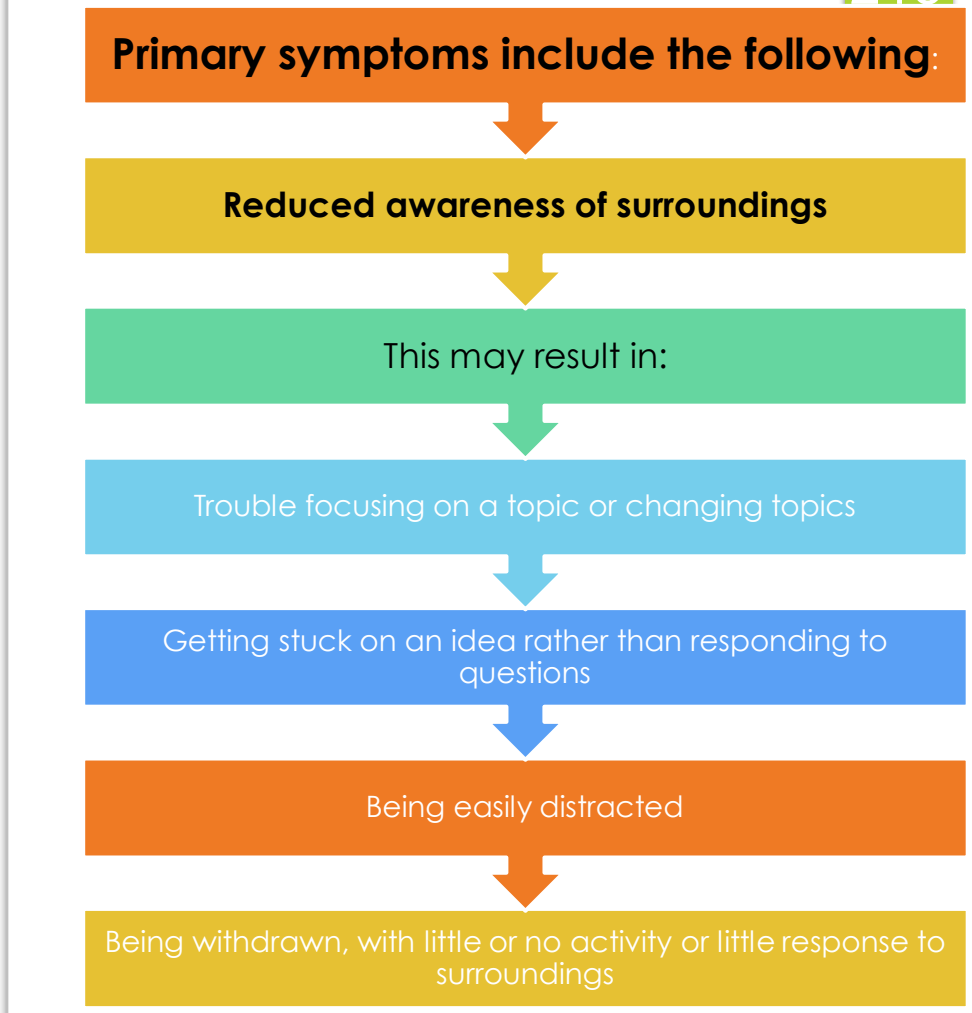
Delirium (cont'd)

Symptoms:

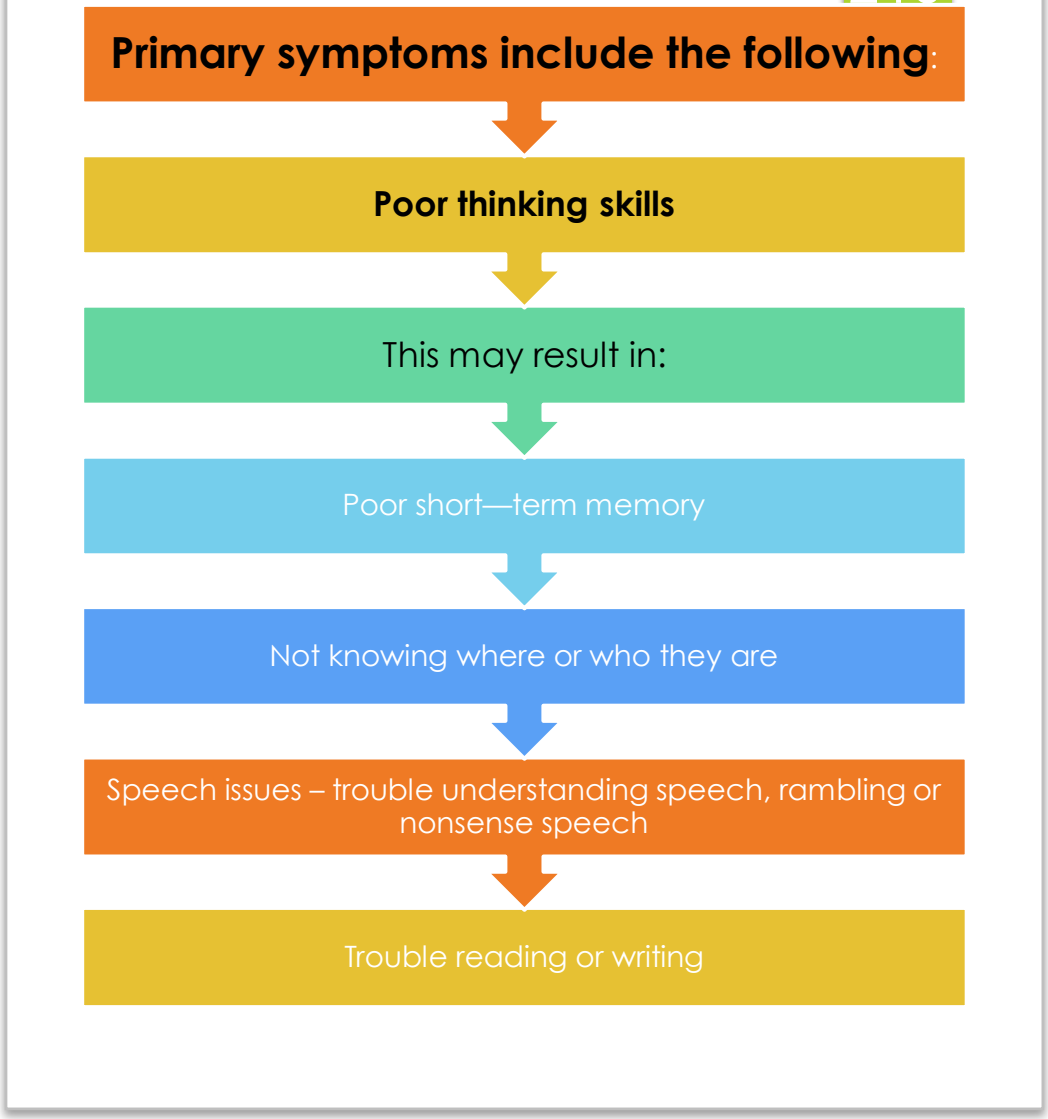
Symptoms of delirium usually begin over a few hours or days and they typically occur with a medical problem, such as a UTI. Symptoms often come and go during the day and there may be periods of no symptoms.

Symptoms tend to be worse at night when it's dark and things look less familiar. They also tend to be worse in settings that aren't familiar, such as in a hospital or a new setting.

Delirium (cont'd)



Delirium (cont'd)



Delirium (cont'd)

Behavior and emotional changes – may include:

- Seeing things that others do not see (hallucinations)
- Anxiety, fear or distrust of others
- Depression
- A short temper or anger
- A sense of feeling elated
- Lack of interest and emotion
- Personality changes
- Quick changes in mood
- Being restless, anxious or combative
- Calling out, moaning or making other sounds
- Being quiet and withdrawn — especially in older adults
- Slowed movement or being sluggish
- Changes in sleep habits
- A switched night-day sleep-wake cycle

Delirium (cont'd)

Is it dementia or delirium??

Delirium:

Onset:

The onset of delirium occurs within a short time — within a day or two.

Attention:

The ability to stay focused or maintain focus is impaired with delirium.

Rapid changes in symptoms:

Delirium symptoms can come and go several times during the day.

Dementia:

Onset:

Dementia usually begins with minor symptoms that get worse over time.

Attention:

A person in the early stages of dementia remains generally alert. Someone with dementia often isn't sluggish or agitated.

Rapid changes in symptoms:

Memory and thinking skills typically stay at a constant level.

Delirium (cont'd)

Treatments for delirium:

Treatment for delirium starts with addressing the underlying cause because there is not a specific medication or treatment that eliminates delirium. Typical treatments include:

- Medication – use of antipsychotics, medication review by physician and pharmacist (to rule out a possible cause)
- Medical evaluation, including a physical and neurological exams, to rule out pain
- Supportive care – family participation,
- Promoting good sleep habits – regular exercise, consistent sleep schedule

Early Onset Dementia

What is "**Early Onset Dementia**"?

In 2023, researchers from the University of Exeter in England and Maastricht University in the Netherlands concluded a years-long study* of more than 350,000 people under the age of 65. The results were analyzed in a large biomedical database to try to understand risk factors for dementia.

Early onset dementia (also known as young-onset dementia) is when someone under the age of 65 develops the condition that causes memory loss.*

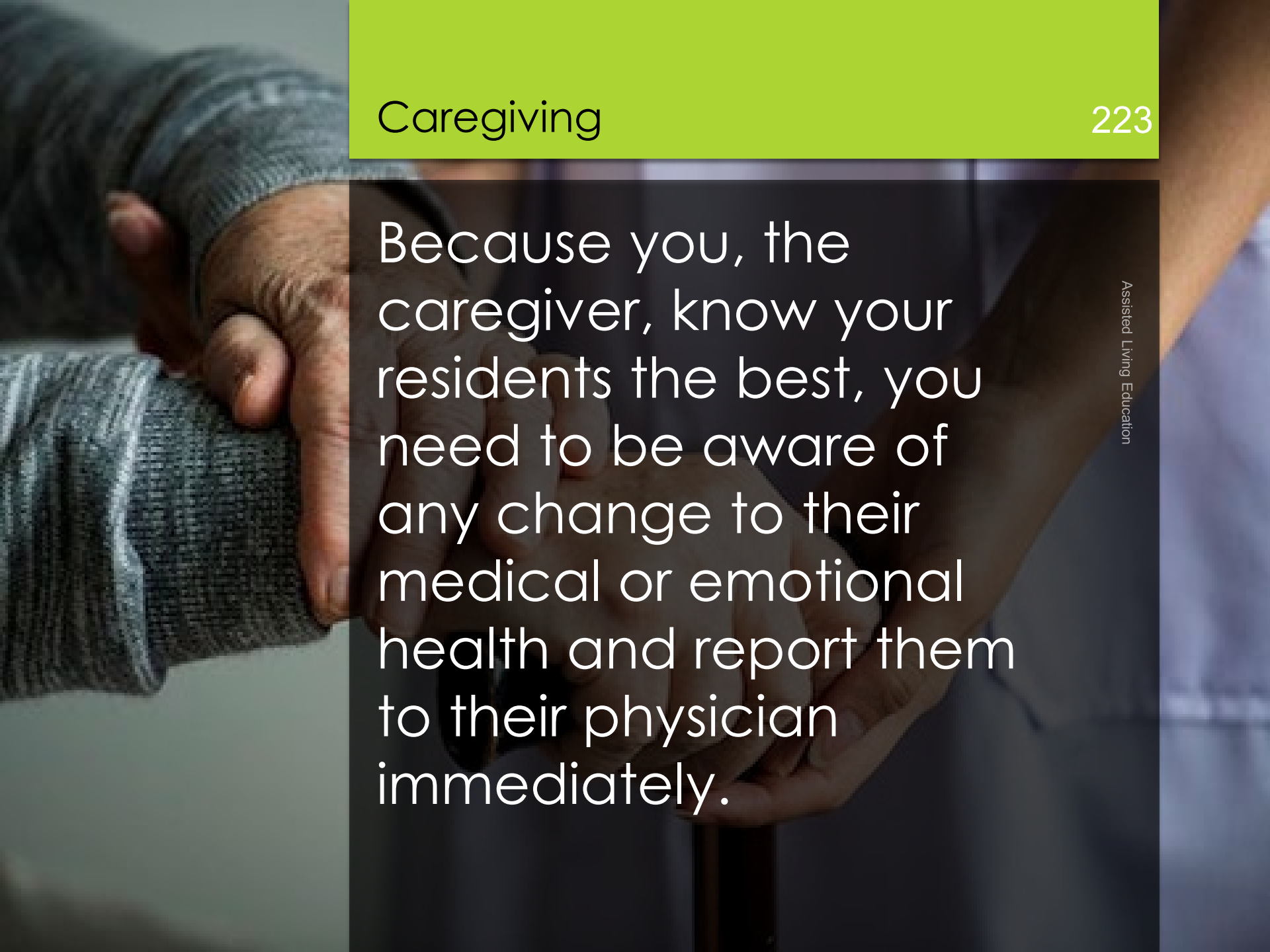
*Source: https://www.yahoo.com/news/study-identifies-15-risk-factors-170532088.html

Early Onset Dementia (cont'd)

Researchers analyzed several risks including environmental and genetic factors and found that out of 39 possible risk factors, 15 were significantly associated with a higher risk of early-onset dementia. They are:

- Lower formal education
- Lower socioeconomic status
- The presence of 2 apolipoprotein E4 allele
- Complete abstinence from alcohol
- Alcohol use disorder
- Social isolation
- Vitamin D deficiency
- High levels of C-reactive protein
- Reduced handgrip strength
- Hearing impairment
- Orthostatic hypotension
- Stroke
- Diabetes
- Heart disease
- Depression

Caregiving



Because you, the caregiver, know your residents the best, you need to be aware of any change to their medical or emotional health and report them to their physician immediately.

Caregiving

Class discussion:

What types of concerns or issues are you facing in your facilities?

Sources

- Department of Social Services Website for: RCFE and ARF Title 22, Health and Safety Codes and PIN's
- Alzheimer's Association
- National Institute on Aging
- LearnFTD.com
- National Library of Medicine, National Center for Biotechnology Information
- National Down Syndrome Society
- Parkinson's Foundation
- NIH National Institute of Neurological Disorders and Stroke
- Mayo Clinic
- WebMD

Conclusion

Assisted Living Education thanks you for attending this Class.

We look forward to seeing you again at another of our Courses!